



ATOM Family

Application Note #28

(AN028-V3.0)

ATOM

[ATOM 1.0] Remote Control

V3.0

December 2007

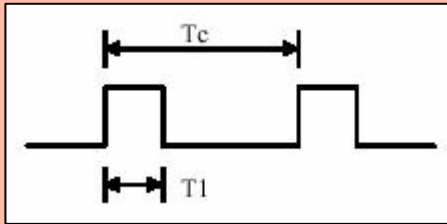
- ◆ CORERIVER Semiconductor reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time.
- ◆ CORERIVER shall give customers at least a three month advance notice of intended discontinuation of a product or a service through its homepage.
- ◆ Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete.
- ◆ The CORERIVER products listed in this document are intended for usage in general electronics applications. These CORERIVER products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury..

Contents

1. Fundamental Remote Control Format
2. Control REM port in ATOM 1.0
3. Schematic
4. Actual waveform

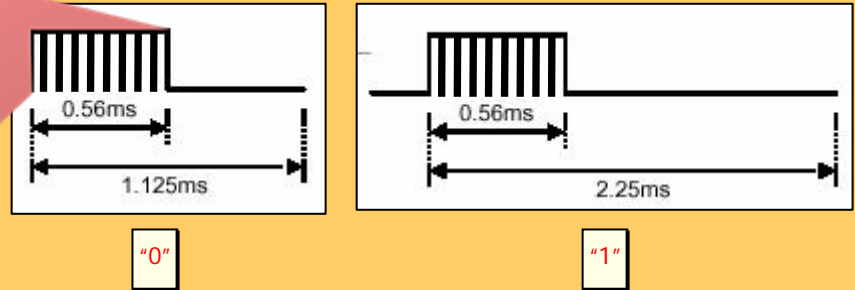
1. Fundamental Remote Control Format

Carrier Frequency

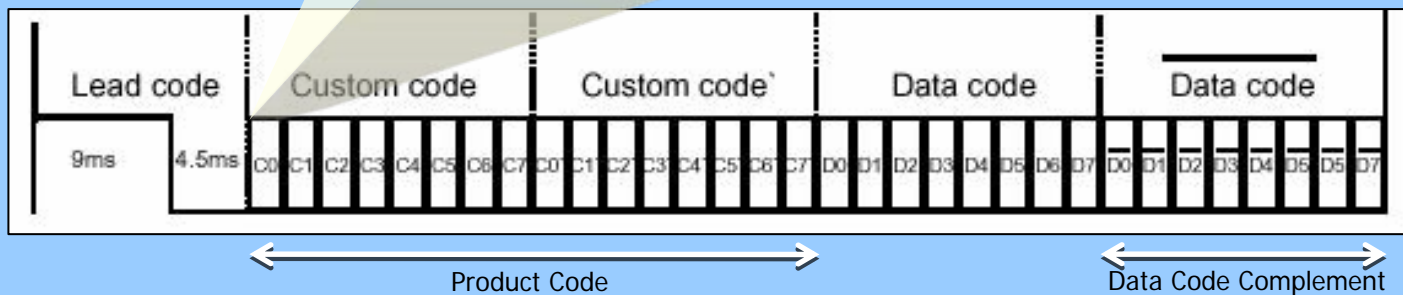


- ◆ 'High' Signal with Carrier Frequency
- ◆ ATOM 1.0 REM Port generate Carrier Frequency

Bit Description



Configuration of Frame



2. Control REM Port in ATOM 1.0

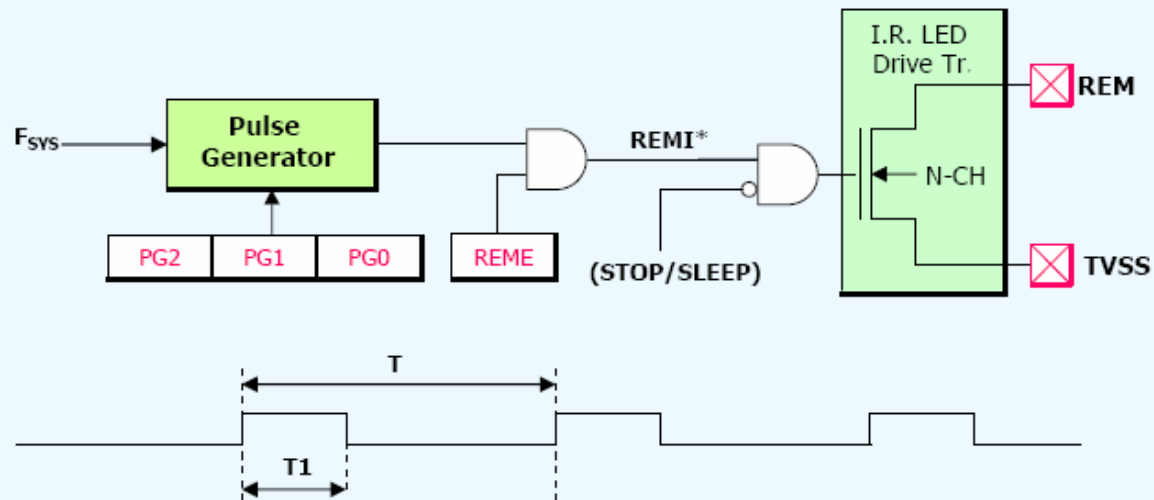
- ◆ Support 7 types of carrier frequency.

✓ **REMC (05h)** : The REM Output Control Register.

REME	PG2	PG1	PG0
R/W(0)	R/W(0)	R/W(0)	R/W(0)

- PG[2:0] : Carrier Frequency Selection.
- REME : REM Output Enable.

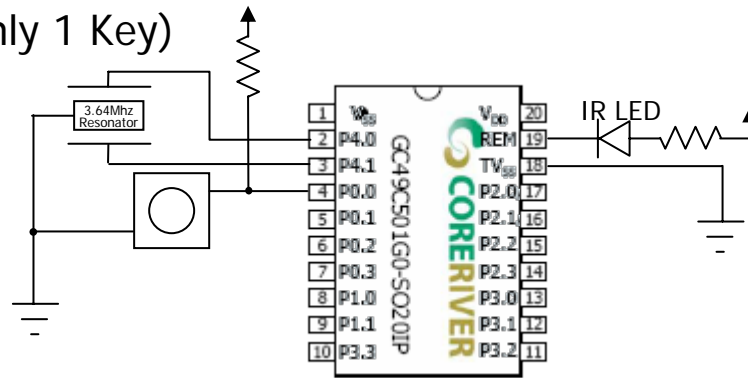
REME	PG2	PG1	PG0	Transmission Control (REMI)
0	X	X	X	0 (Disable)
1	0	0	0	$1/T = F_{SYS}/12, T1/T = 1/3$
1	0	0	1	$1/T = F_{SYS}/8, T1/T = 1/2$
1	0	1	0	$1/T = F_{SYS}/12, T1/T = 1/4$
1	0	1	1	1 (No Carrier)
1	1	0	0	$1/T = F_{SYS}/12, T1/T = 1/2$
1	1	0	1	$1/T = F_{SYS}/8, T1/T = 1/4$
1	1	1	0	$1/T = F_{SYS}/11, T1/T = 4/11$
1	1	1	1	1 (No Carrier)



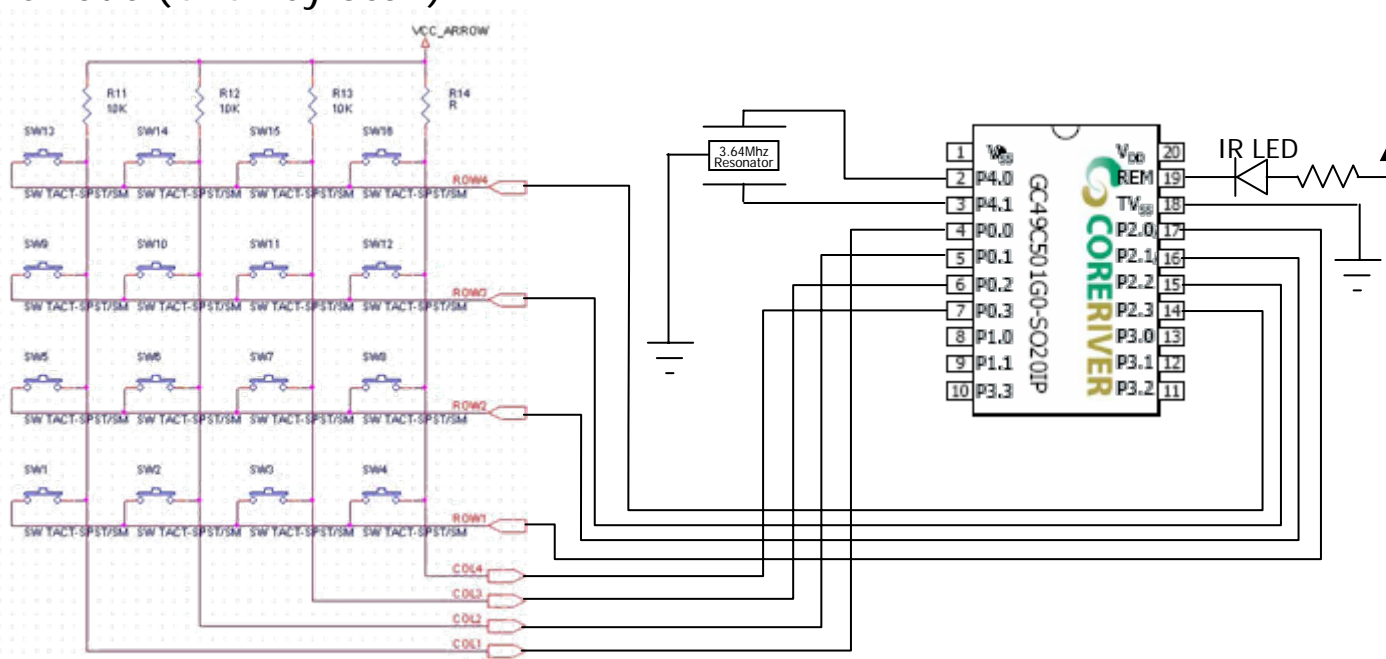
※ Reference to ATOM 1.0 Brief Manual Page 20, 21

3. Schematic

◆ Schematic (only 1 Key)

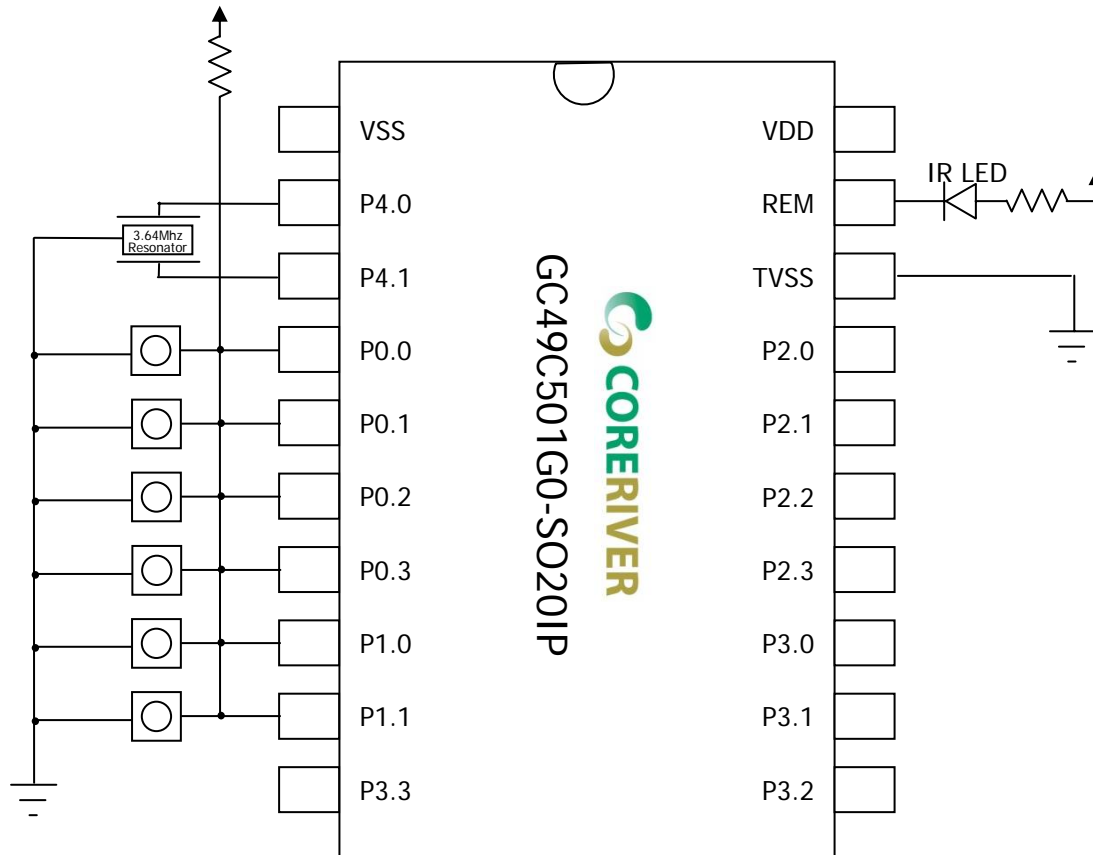


◆ Schematic (4X4 Key Scan)



3. Schematic

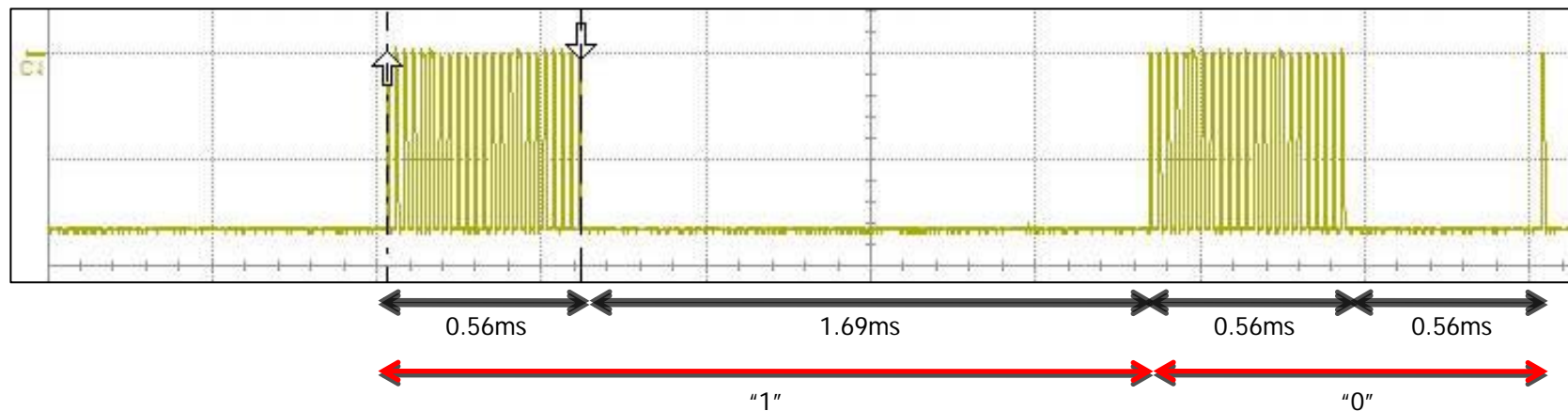
◆ Schematic (6 Key)



※ STOP mode Wake-up by changes in input Port0 (P0.0~P0.3) or Port1 (24SOIC : P1.0 ~ P1.3, 20SOIC : P1.0 ~ P1.1).

4. Actual waveform

◆ High and Low



◆ Signal fulse example

